

REMARKS

By the present amendment, the specification has been amended to set forth that the toy can add or subtract the numerals printed on the tags.¹ Also, claim 1 has been amended to incorporate the subject matter of claims 2 and 3,² claims 4, 10, 17, and 19 have each been placed in an independent format, claims 19 and 28 have been amended to eliminate the word "wig"³, claim 26 has been amended to recite "simulated fish"⁴, and claims 1, 4, 6-8, 13, 19, and 28 have been amended to eliminate indefiniteness issues. Upon entry of this amendment, claims 1 and 4-32 will be pending in the application.

Allowable Subject Matter

The indicated allowability of claims 17-19 and 26-30 is noted with appreciation. By the present amendment, claims 17 and 19 have each been placed in an independent format and §112 indefiniteness issues have been addressed in the relevant claims.

Claim Rejections - 35 U.S.C. § 102 / §103

Claims 4, 5 and 10 have been rejected as being anticipated by, or obvious over, U.S. Patent No. 4,884,974 to DeSmet.⁵ This patent discloses a "talking" book TB having a ROM module 19 which is loaded with recorded messages corresponding to the written text on each page P of the book. When the book's back cover 18 is inserted into the inlet 20 of an audio player AP, the module 19 is connected to the player's speech unit 22. (See DeSmet Figure 5, below.) A sensor array 27 is mounted above the inlet 20 of the audio player AP to pick up ambient light reflected from a bar code printed on the margin of the page P that is open to the reader. (See DeSmet Figures 6 and 7, below.) A sensor interface (e.g. a microprocessor) transfers page-identifying

¹This is believed to provide proper antecedent basis for the claimed subject matter in response to the Examiner's objection to specification.

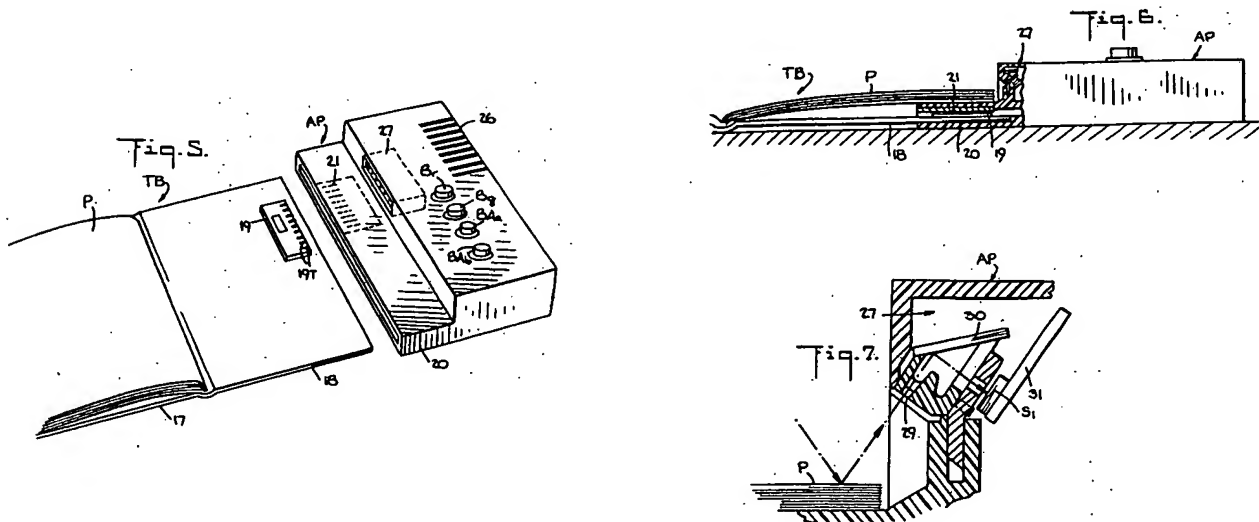
²Claims 2 and 3 have been accordingly canceled.

³This renders the Examiner's drawing objection moot.

⁴This correction addresses the Examiner's claim objection.

⁵Claim 1 now incorporates the subject matter of claims 2 and 3 (which were not found unpatentable over DeSmet), and claims 6 and 13-16 depend from claim 1.

information from the sensor 27 to the speech unit 22 which outputs from the ROM module 19 the recorded message corresponding to the text on identified open page.⁶



In the Office Action, the Examiner contends that the DeSmet module 19 constitutes a host structure and that the pages of the book constitute attachable items that are attached to this host structure. Be this as it may, the ROM module 19 does not include a reader, as the DeSmet reader (the sensor array 27) is housed in its audio player AP.⁷ Moreover, this reference does not show or suggest that its reader could or should be moved from the audio player AP to the back cover of the book 18.

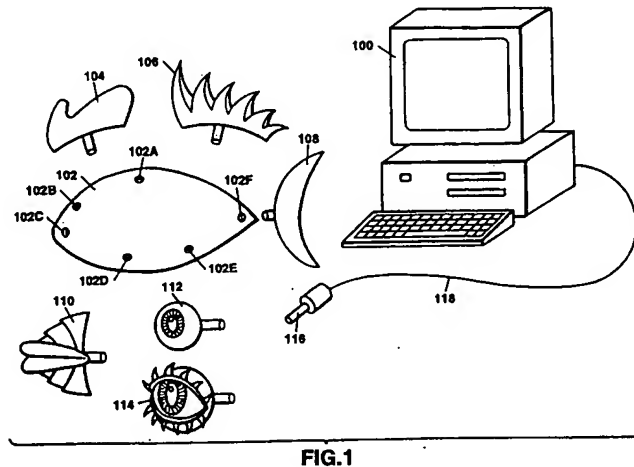
Claims 1-3, 6-8, 11, 21-22 and 31 have been rejected as being anticipated by U.S. Patent No. 6,290,565 to Galyean and claims 12, 23-25 and 32 have been rejected as being obvious over Galyean. Galyean discloses a computer 100 which interacts with a toy comprising a body and plurality of accessory parts that can be connected thereto.⁸ The toy can comprise a fish body 102 with accessory parts including fins 104

⁶Thus, whenever a page P of the book TB is turned to lie over the base inlet 20, the audio player AP picks up the identifying code of that page and reads aloud its printed text.

⁷Claims 4, 5 and 10 recite that the host structure comprises at least one reader and that the at least one reader reads the identification information from a particular tag when the corresponding attachable item is attached to the host structure.

⁸Galyean also discloses toy resembling a robot consisting of two main body parts 300 and 302, and accessory parts (head 304, arms 306/308, and legs 310/312) that can be plugged into part 300 or part 302. A cable 314 connects the body parts 300 and 302 to the computer 100. (See Galyean Figure 3.) The robot accessory parts have

and 106, tails 108, mouth parts 110, and eyes 112 and 114. Each of the accessory parts is provided with a plug mechanism which fits into one of the sockets 102A-102F on the fish body 102. (See Galyean Figure 1, below.)



The body 102 is connected to computer 100 by means of a cable 118 which has a plug 116 at one end. The plug can be selectively insertable into any of the accessory-receiving sockets 102A - 102F or, alternatively, a particular designated socket can be used whereby the plug 116 would be physically configured so that it can only be inserted into a predetermined socket. The Galyean patent notes that “[a]lternatively, a wireless connection, such as an infrared or radio connection, could also be used without departing from the spirit and scope of the invention.” Thus, instead of the cable 118 connecting the toy body 102 to the computer 100, a wireless connection could connect the toy body 102 to the computer 100.

The plug portions of the accessory parts are designed to uniquely code the respective parts so that each part can be recognized by the computer 100 when this part is plugged into the toy body. For example, the plug member 500 can have rings 502-508 spaced in a coded manner so that electrical switches 510-522 in the socket will be closed (or remain open) in accordance with the spacing of the rings. (See Galyean Figure 5A, below.) The plug member 522 can have conductive rings 526-536 spaced in a coded manner so that electrical contact will be established (or not established) with contacts 538 in the socket. (See Galyean Figure 5B, below.) The plug member 548

embedded sensors that detect movement (e.g., bending of the legs 310 and 312) so that, when movement is sensed, the computer 100 may cause the computer-generated graphic character to walk in the virtual environment.

can have conductive strips 550-554 spaced in a coding manner so voltage is selectively applied to the contacts in the socket. (See Galyean Figure 5D, below.) The plug member 556 can include a plurality of notches 558-562 cut in a coding pattern so that un-notched portions thereby between will close only certain electrical switches 564 within the socket. (See Figure 5E, below.)⁹ The electrical leads from the various switches or contacts in the sockets can be connected, directly or indirectly, to a bus 614 which connects all of the sockets 602-612. The toy body 600 can be connected to the computer by means of a plug 616 and a cable 618. (See Figure 6A, below.)

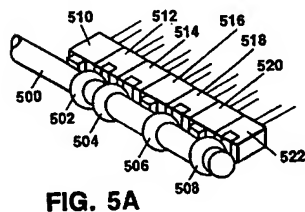


FIG. 5A

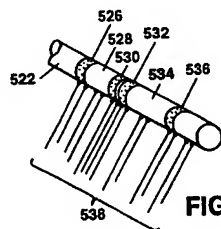


FIG. 5B

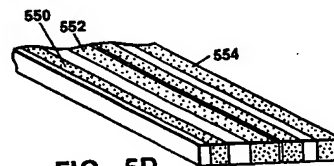


FIG. 5D

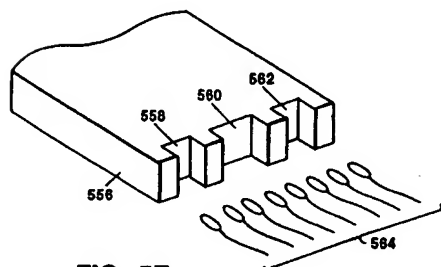


FIG. 5E

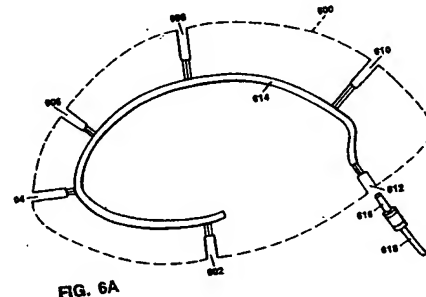


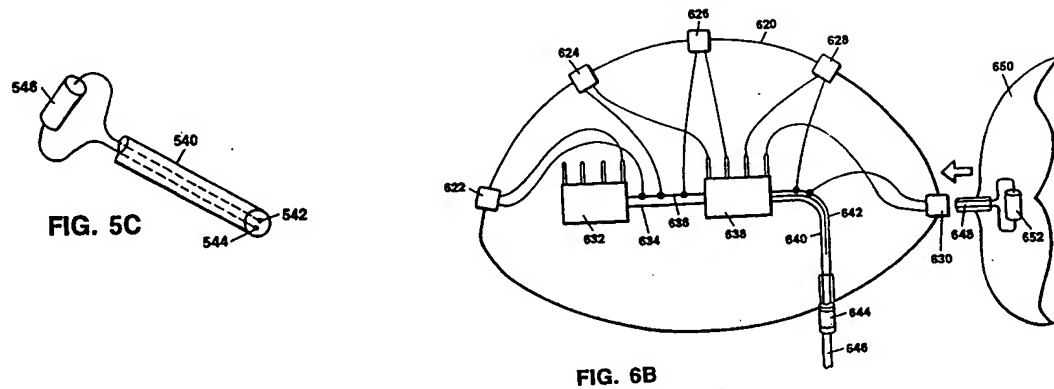
FIG. 6A

Alternatively, the plug member 540 can be provided with two electrical wires 542 and 544 and a unique electrical element therebetween so an identifying parameter will be created when the plug member is electrically connected within the socket. (See Galyean Figure 5C, below.) For example the "fin" accessory part 650 of a fish toy could house a resistor 652 for connection to the socket 630 by means of plug 648. (See Figure 6B, below.) A separate A/D converter is assigned to each socket to measure the voltage drop associated with the relevant resistor and the resistance value is effectively measured by the associated A/D converter 632/638.¹⁰ The converter units

⁹The Galyean patent notes that "[i]n an alternative embodiment, each accessory part could incorporate a special identification chip which generates a special identification code that can be forwarded over a network to the computer system."

¹⁰When there is no part in the socket, there is a gap, so the resistance is infinite.

632 and 638 communicate with the computer system via digital signals transmitted on the supply lines 636 and 642. (See Figure 6B, below.)



Claims 1, 6-8, 11, 12, 21-25, set forth that reader(s) is(are) housed by the host structure and that the reader(s) broadcast a radio frequency activation signal, which powers the tag to transmit item identification information to the reader. Claim 31 - 32 set forth a plurality of radio frequency readers housed by the host structure and radio frequency tags housed by the attachable items and, when respectively read by a radio frequency reader, provide identification information particular to that attachment item. It is respectfully submitted that Galyean does not show or suggest these features. In Galyean, the plug portions physically make electrical contact with the sockets to transmit identification information.¹¹ There is no broadcast of a radio frequency activation signal by the sockets and there is no radio frequency tags housed by the plug portions.¹²

¹¹As was explained above, Galyean only suggests a wireless connection between the toy body 102 (*i.e.*, the host structure) and the computer 100 (*i.e.*, the output device).

¹²Claims 1 and 9 have been rejected as being anticipated by U.S. Patent No. 4,968,255 to Lee. Because these claims now incorporate the subject matter of claim 3, this rejection need not be addressed in this response.

Information Disclosure Statement

An Information Disclosure Statement was mailed on January 28, 2004 and received by the Office on February 2, 2004. The Examiner is asked to please acknowledge receipt of this statement and provide an indication that the references cited therein have been considered.

Conclusion

This application is now believed to be in a condition for allowance and an early action to that effect is earnestly solicited.

Respectfully submitted,

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Date: May 10, 2004

Claudia Bader
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